AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of the claims in the application:

LISTING OF CLAIMS

Claim 1 (Currently Amended): A method of monitoring the location of a mining vehicle in a mine, the method comprising:

driving at least one mining vehicle during one work cycle at least in a first work area and in a second work area of the mine, wherein only the first work area is provided with at least one identifier whose location is accurately known;

determining data on the location of the mining vehicle in the mine;

transferring said location data to a mine control system;

employing, in location data transfer, a data communication connection communicating with the mine control system;

employing the obtained location data in the mine control system for monitoring the operation of the mining vehicle,

determining the location of the mining vehicle substantially continuously in the first work area and the second work area on the basis of a dead reckoning, wherein the distance travelled is calculated and the travel direction is determined;

determining, when operating in the second work area, the location of the mining vehicle only on the basis of the dead reckoning;

identifying, when operating in the first work area, at least one identifier whose location is accurately known;

determining the location data of the mining vehicle on the basis of the identification

data;

and updating the location data determined in the dead reckoning on the basis of the

location data of the identifier only when driving in the first work area.

Claim 2 (Previously Presented): A method as claimed in claim 1, comprising:

arranging at least one readable identifier in a predetermined location in the first work

area,

assigning the location data of the identifier in advance to a control unit in the mining

vehicle,

reading the identifier with at least one reading device in the mining vehicle,

and determining the location of the mining vehicle in the first work area on the basis

of the location data of the identifier, and updating the location data obtained on the basis of

the dead reckoning.

Claim 3 (Previously Presented): A method as claimed in claim 1, comprising:

arranging at least one readable identifier in a predetermined location in the first work

area,

assigning the location data of the identifier of the identifier in advance to a control

unit in the mining vehicle,

reading the identifier with at least one reading device in the mining vehicle[[.]],

determining the location of the mining vehicle in the first work areas on the basis of

the location data of the identifier, and updating the location data obtained on the basis of the

dead reckoning,

and, reading a visual identifier arranged in the first work area for determining the

location of the mining vehicle.

Claim 4 (Previously Presented): A method as claimed in claim 1, comprising:

arranging at least one readable identifier in a predetermined location in the first work

area,

assigning the location data of the identifier in advance to a control unit in the mining

vehicle,

reading the identifier with at least one reading device in the mining vehicle,

determining the location of the mining vehicle in the first work area on the basis of

the location data of the identifier, and updating the location data obtained on the basis of the

dead reckoning,

arranging at least one identifier comprising a receiver in the first work area,

transmitting a signal for reading the identifier from a transmitter in the mining vehicle

when driving in the first work area,

and determining the location of the identifier read as the location of the mining

vehicle.

Claim 5 (Previously Presented): A method as claimed in claim 1, comprising:

arranging at least one transmitter that transmits a signal in a predetermined location in

the first work area,

receiving the signal by means of the data transfer unit in the mining vehicle when in

the coverage area of the transmitter,

and determining the location of the mining vehicle on the basis of the signal and updating the location data obtained on the basis of the dead reckoning.

Claim 6 (Previously Presented): A method as claimed in claim 1, comprising:

creating a wireless network comprising a plurality of base stations placed in predetermined locations in the first work area,

and determining the location of the mining vehicle in the first work area by positioning carried out in the wireless network and updating the location data obtained on the basis of the dead reckoning.

Claim 7 (Previously Presented): A method as claimed in claim 1, comprising:

driving the mining vehicle, suitable for transporting, in accordance with a work cycle,

driving the mining vehicle from an unloading area to a loading area,

loading cargo into the mining vehicle in the loading area,

driving the loaded mining vehicle from the loading area to the unloading area,

unloading the cargo of the mining vehicle in the unloading area,

determining the location of the mining vehicle in the loading area only on the basis of the dead reckoning,

and determining the location of the mining vehicle in the unloading area both on the basis of the dead reckoning and by reading at least one identifier arranged in the unloading area.

Claim 8 (Currently Amended): A system for monitoring the location of a mining vehicle in a mine, the system comprising:

a first work area and a second work area in the mine, in which areas the mining

vehicle is arranged to drive during one work cycle, and wherein only the first work area is

provided with at least one identifier whose location is accurately known;

at least one measuring device for determining the distance travelled by the mining

vehicle, and further at least one measuring device for determining the direction of the mining

vehicle;

a mine control system;

at least one control unit arranged in the mining vehicle;

at least one data transfer connection for data transfer between the control unit of the

mining vehicle and the mine control system;

and in which system:

location data of the mining vehicle are arranged to be transferred via the data transfer

connection from the mining vehicle to the mine control system,

the location of the mining vehicle is arranged to be determined substantially

continuously in the first work area and the second work area on the basis of a dead reckoning

by taking into account the distance travelled and the direction;

the location of the mining vehicle is arranged to be determined only on the basis of

the dead reckoning, when operating in the second work area;

at least one identifier whose location is known to the control unit is arranged in the

first work area;

the mining vehicle is arranged to identify the identifier when driving in the vicinity of

the identifier in the first work area;

the control unit is arranged to determine location data on the basis of the identification

data;

and the control unit is arranged to update the location determined in the dead

reckoning on the basis of the location data of the identifier <u>in the first work area</u>.

Claim 9 (Previously Presented): A system as claimed in claim 8, wherein

at least one readable identifier whose exact location is known to the mine control

system is arranged in the first work area;

the mining vehicle comprises means for reading the identifier.

Claim 10 (Previously Presented): A system as claimed in claim 8 wherein

the first work area comprises at least one predetermined critical location,

and at least one identifier is arranged in the immediate vicinity of said critical

location.